

# ORBIS

SPITFIRE AUDIO - ORBIS  
USER MANUAL

---

---

# CONGRATULATIONS

---

Thank you for purchasing Orbis. Sometimes a score needs more than an orchestra. Discover a new world of over 2500 extraordinary sounds, born out of organic performances, then treated and transported to epic new dimensions. Designed for the progressively-minded composer, the sounds in this gargantuan creative compendium range from distorted loops to evolving textures and visceral one-shots; subsonic low-end to ethereal pads.

Perfect for producing rich-sounding, panoramic scores – from nature documentaries to blockbuster sci-fi movies – Orbis reimagines the work of global sonic explorer David Fanshawe. Over 4 decades, Fanshawe travelled the globe to capture rare, breathtaking beautiful, performances from different cultures, previously unrecorded. Our sophisticated eDNA engine enables you to mix and manipulate these unique sounds to create an almost infinite set of creative possibilities.

## Quick Specs

- Number of samples: 18,450
- Download Size - 21.14GBs
- Dedicated Plug In (VST, VST3, AU, AAX)
- OS X 10.10 or higher
- Win 7 or higher.

## TABLE OF CONTENTS

CONGRATULATIONS	2
WELCOME	3
DOWNLOADING & INSTALLING	5
THE eDNA INTERFACE	9
THE FX PAGE	14
APPENDIX A - RECOMMENDED TECH SPECS	26
APPENDIX B - eDNA EFFECTS	27
APPENDIX C - FAQs & TROUBLESHOOTING	29

---

# WELCOME

---

## EXPAND YOUR HORIZONS

Go beyond orchestral with this expansive, inspiring, one-of-a-kind collection of sounds, born out of rare recordings, treated, distorted and taken to new dimensions by our team of engineers, and presented in Spitfire's highly sophisticated eDNA Engine.

Orbis was conceived in January 2015, when Jane Fanshawe introduced Spitfire founder and composer Paul Thomson to Fanshawe's incredible archive containing over 2000 hours of recordings. Handpicked by the Spitfire team, delve deeper into some of the most rare and distinctive sounds and loops you will ever hear, rich in history, character and emotion, from a range of cultures and communities, many of which no longer exist. Fanshawe's recordings have been used in massive film scores, from *Seven Years in Tibet* to *Gangs of New York*, and are now ready to empower and enhance your next score.

Orbis gives you much more than organic field recordings — 90% of the library is made up of treated content, created from the clean recordings by our expert team of engineers in our own journey of sonic discovery. Our eDNA engine provides you with endless parameters and possibilities to enhance every sound even further. Discover hundreds of sounds, treated in various different ways using our expertise and technology, with every sound run through 3000 lines of code. Some have been subtly manipulated, while others heavily processed, unrecognisable from their original source material. From playable one shots and short phrases to tuned and untuned rhythmic loops and recordings up to a minute long, discover sounds with subtle movement, complexity and evolution. Throbbing basses and pulsing loops, ideal for dance music; thunderous drones, subsonic low-end and visceral, tortured drum hits, for adding movement and depth; *Blade Runner*-style synths, made from antelope horns, and ethereal pads and breathtakingly beautiful evolving textures, for three dimensional cinematic soundscapes. Designed to take you to new levels of sonic exploration and adventure, this library offers you a lifetime of inspiration, and is an essential resource for any producer, composer or sound designer looking for that new sound or texture.

"The present is almost history. Every day is worth recording." — David Fanshawe, 1942-2010

Professionally and meticulously recorded on his Nagra, Uher, and Stellavox tape machines with expertly placed mics, these recordings were captured at a time when technology's inexorable development was making the world a smaller place, and rare cultures and traditions were becoming more homogenised. Fanshawe's pioneering spirit led him to the most remote corners of the earth to capture the traditions and spirit of rare communities by recording instruments, voices, music, and languages. Building on Fanshawe's archive, a collection of immense cultural and historical significance, Orbis makes these sounds accessible to future generations of composers for the very first time, while taking them to an entirely new place, providing you with the DNA of countless cultures from across the globe.

## THE EDNA ENGINE

Orbis is presented in our bespoke eDNA Engine (as in our eDNA Earth library), the very latest in sonic sculpting technology offering you endless opportunities to manipulate each sound beyond our own treatments. The engine is now housed in our standalone plugin, which loads direct into any DAW for even more control. We've also created a new user friendly search function with fully tagged searchable content, so you can browse by type of sound, by country, or by instrument.

Imagine the eDNA engine as a set of two turntables and a highly sophisticated DJ mixer. It contains two sound bays, each designed to create differing sonic treatments, with individual and independent modulators, control of trim, bend, glide, cloning, tuning, ADSR, LPFs, HPFs and wobbles that modulate pitch, volume and filters. The gate sequencer allows independent gating between these two bays and unified control of amount, shape, speed and length of sequence. These two signals are then unified with a x-fader. Move between the sounds with the mouse or the factory-default assigned modulation wheel.

We've also designed a custom script that oscillates the x-fader automatically with control over speed and phase, and eDNA's five-stage FX path contains 41 custom plugins, including bespoke IRs pre-loaded. There are two "layer fx" stages that affect sound A or B, plus an auxiliary FX stage that can be sent via the layers or master FX stage. Any parameter of these can be assigned for automation or assignment to your controller.

---

## DAVID FANSHAWE

“Through the adventures of music and travel, I have been privileged to experience our world as a composer and musical explorer. It is my humble dream to go on sharing my aspirations with future generations through the legacy of my sound archives.” - David Fanshawe

A legend in the music world, Fanshawe (1942-2010) was an English composer, sound explorer and ethnomusicologist who travelled the globe to gather an archive of approximately 2,000 hours of music. The huge David Fanshawe World Music Archive, recorded between 1967-1994, is his legacy to the world — 3200 stereo master tapes, 3000 analogue audio tapes, 200 digital audio tapes, 70 hand-written journals and 40,000 colour images, documented for posterity at a time of great change.

His passion for travel, adventure and music started at an early age, and although his severe dyslexia prevented him from reading a musical score, in 1965 he won a scholarship to the Royal College of Music to study composition. He travelled widely in Europe and the Middle East, and while hitchhiking in Afghanistan he heard Islamic music for the first time and was immediately attracted to its beauty. During further travels in Iraq and Bahrain, he brought a small stereo tape recorder on his journey and persuaded local musicians to play for him, travelling up the Nile from the Mediterranean Sea and visiting Egypt, Sudan, Uganda and Kenya over a three-year period before finally reaching Lake Victoria. During a ten-year odyssey across the islands of the Pacific Ocean from 1978, Fanshawe collected hours of indigenous music, documenting the music and oral traditions of remote parts of Polynesia, Micronesia and Melanesia.

Returning to the United Kingdom with several hundreds of hours of recordings, Fanshawe used the material to compose what became his best known work, *African Sanctus*. He became widely known for composing choral works, as well as over 50 scores for films and television. His organic field recordings have featured in countless TV documentaries and international feature films.

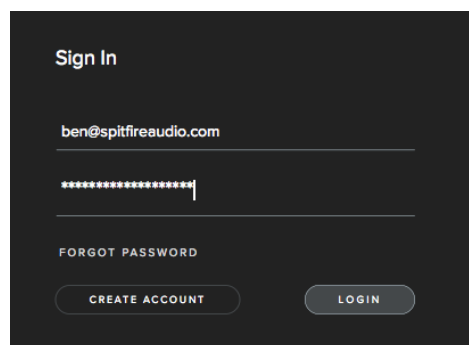


# DOWNLOADING & INSTALLING

If you are a total newbie to this kind of thing you can get up to speed here: <http://www.spitfireaudio.com/info/basics/>

First though, grab the 'Spitfire Audio App' from this link. The app will enable you to download the library  
<http://www.spitfireaudio.com/info/library-manager/>

## THE SPITFIRE AUDIO APP

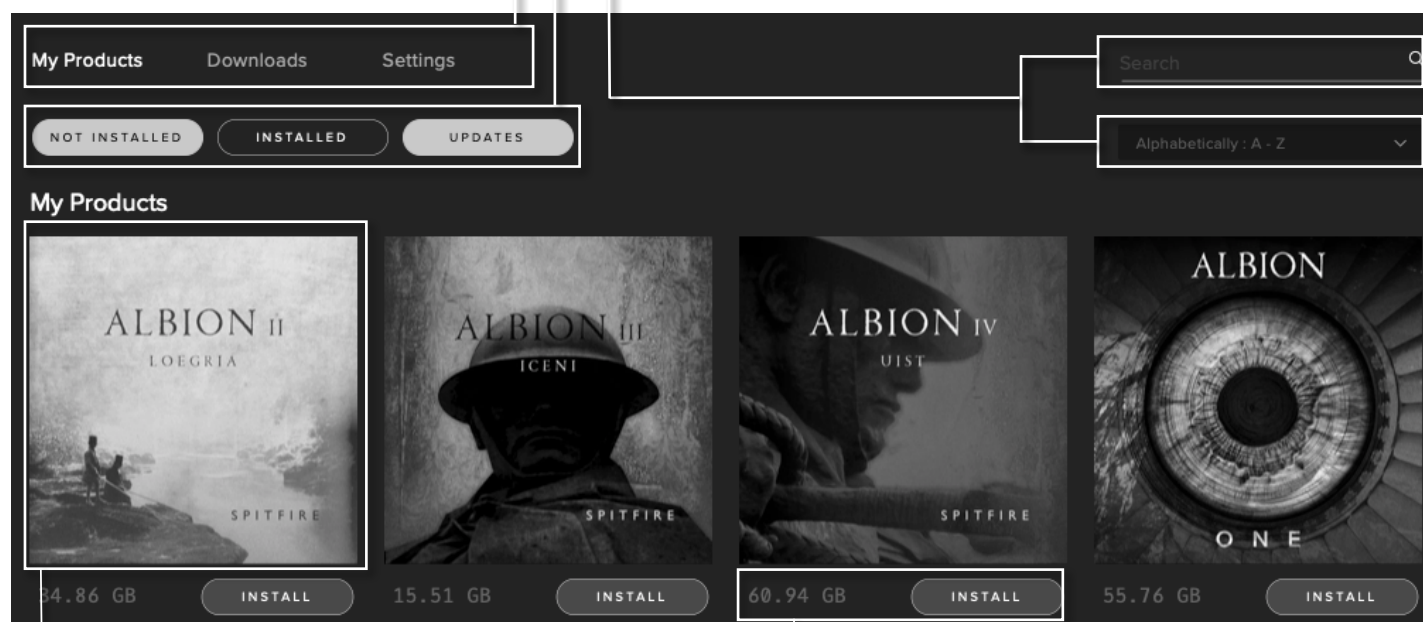


When you launch the app you will be prompted to login using the same details you use at our site. Then you'll see the page pictured below:

**TABS** the default tab is **My Products**, which shows all of the libraries on your Spitfire Account. **Downloads** will show currently downloading products and **Settings** allows you to set default locations and behaviours as described on the next page.

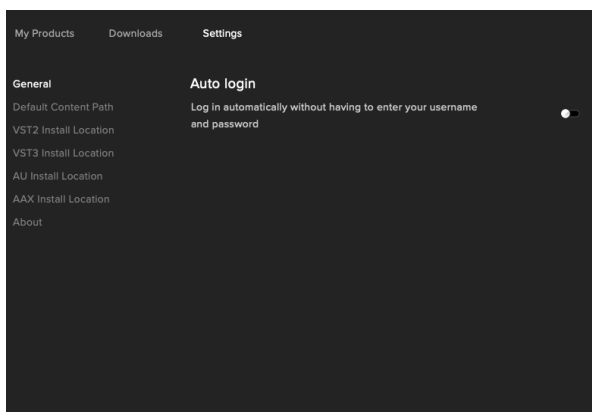
**FILTERS** clicking these filters will quickly display products you've yet to install, those already installed, and any available updates. Clicking again will remove the filter.

**SEARCH** and **SORT** allow you to quickly navigate through your collection and arrange your collection either by size or name.



**LIBRARY** All libraries and plugins in your collection will appear with their artwork on the **My Products** tab. Clicking this artwork will open the product page. This is a great place to find information such as system requirements, instructions as well as where to find **Reset** and **Repair** options.

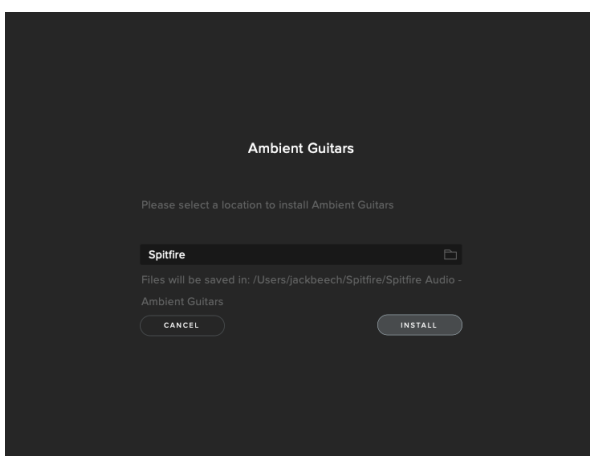
**INSTALL/UPDATE** buttons allow you to quickly start a download directly from the **My Products** tab, instead of clicking through to the **Library**. Next to the button the size of the download is shown.



If this is your first time using the Spitfire Audio App for a download you may wish to first navigate to the **Settings** tab and make sure that the **Default Content** location is set to the location where you wish to download your libraries.

Here you can also enable **Auto Login / Skip Auto Updates** to save time in future. Set the **Default Content Location** and **VST2 Install location**.

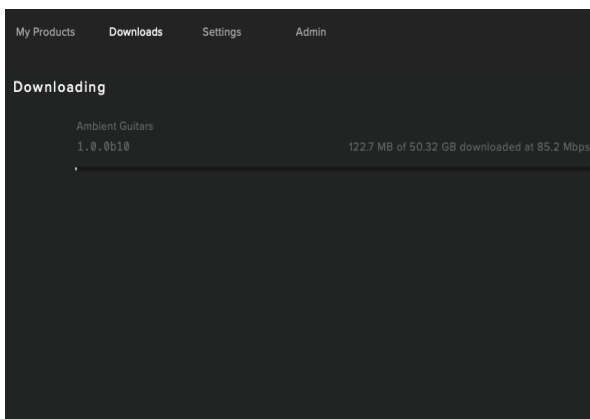
**VST3, AU** and **AAX** plugin locations can all be viewed here but not set.



Once you are happy with your Settings, click the **Install** button, either directly on the **My Products** tab, or by clicking on the library image you wish to install and then clicking the install button on the page that appears.

Clicking either of these will prompt you for a location, the **default content location** in your settings will be suggested but you can select any suitable location.

Once you are happy with the location click **Install**.



After clicking install you will be directed to the **Downloads** tab where you can watch the progress. You can leave the **Downloads** tab and start other downloads but at this point you should leave the Spitfire App open until the download completes.

Once installed via the Spitfire Audio Application this library is already authorised. It does not require an external serial number or Native Access to Authorise.

This library is a dedicated plugin that comes as VST2, VST3, AU or AXX — it's accessed directly through your DAW instrument track and doesn't require Kontakt at all.

# A QUICK LOOK

## THE EDNA INTERFACE



# HAVE A LOOK AROUND

## TOP MENU



## PRESET SELECTOR



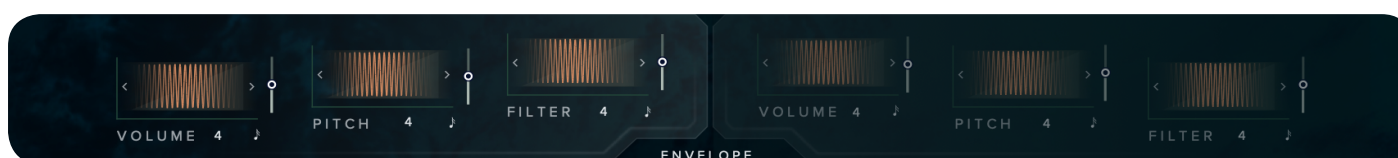
## MAIN CONTROLS



## SOUND BAYS



## WOBBLES



## ENVELOPE



## MIXER





# PLUGIN SETTINGS

## PLUGIN SETTINGS

Accessed via the cog on the top right hand of the plugin, the settings allow you to customise RAM usage, drive streaming and the plugin visual behaviour

1. **Help Text** - Turn this on to display parameter information in the bottom left corner of the plug in.

2. **Default size** - Set whether the instrument opens up collapsed or expanded by default.

3. **Default scale** - How big the instrument is when you open it as a fraction of its original size. Here you can “get” the current scale of the instrument or change the value by typing in the box. Press “set” to change the scale of the instrument.

4. **Gain Units** - Toggle this if you want your gain to be displayed in dB instead of as a percentage.

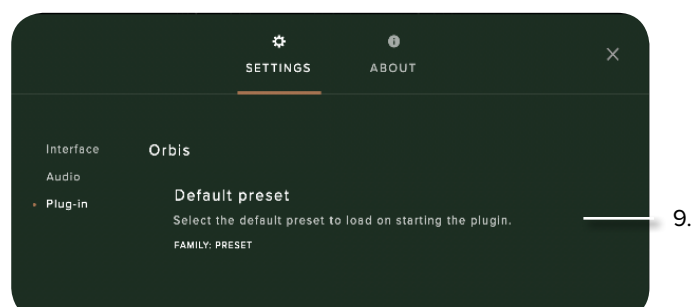
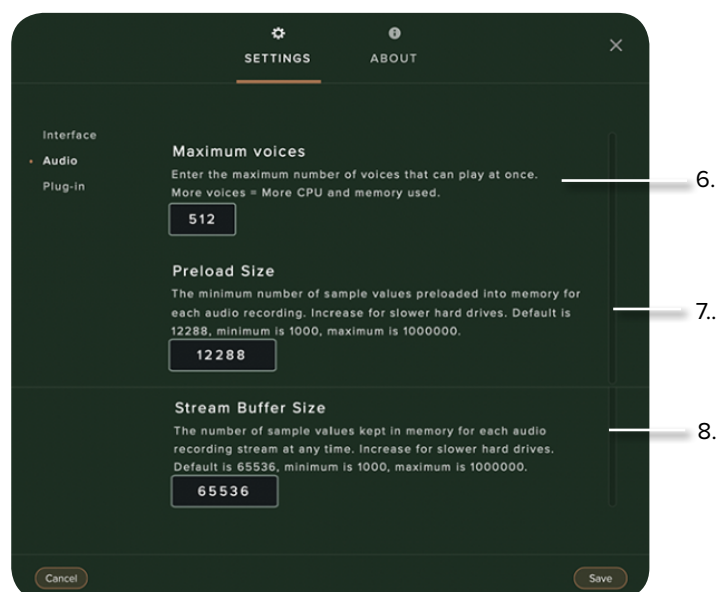
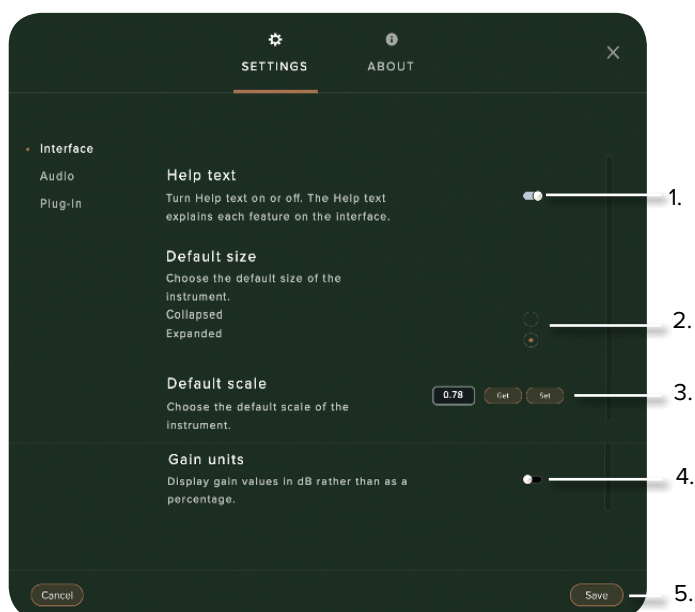
5. **Save** - Press “save” to ensure the your choices are remembered when re opening the plug in.

6. **Maximum voices** - Enter the maximum number of voices that can play at once. More voices = More CPU and memory used.

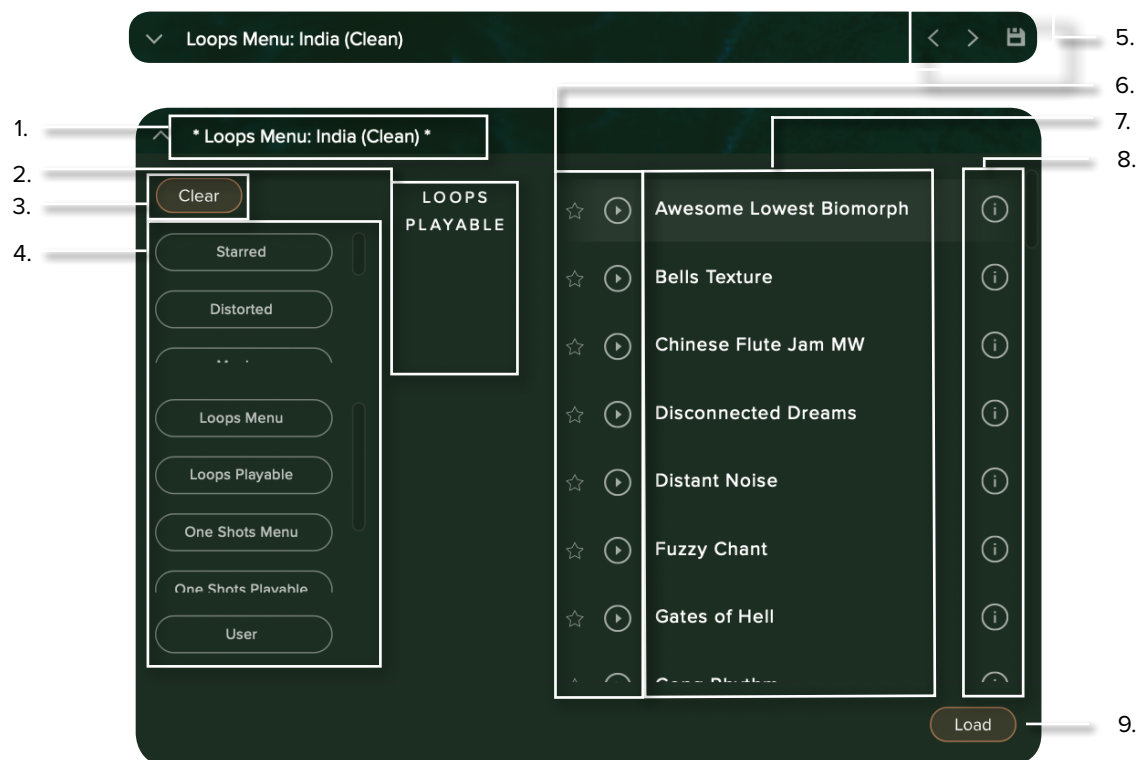
7. **Preload Size** - The minimum number of sample values preloaded into memory for each audio recording. Increase for slower hard drives. Default is 12888.

8. **Stream Buffer Size** - The number of sample values kept in memory for each audio recording stream at any time. Increase for slower hard drives. Default is 65536.

9. **Default Preset** - Choose a preset that you wish the plug in to load by default on launch



# PRESET SELECTOR



## 1. PRESET NAME

Here you can see the currently selected preset.

## 2. INSTRUMENT GROUP

As you scroll through the available presets, the instrument group is displayed here.

## 3. CLEAR FILTERS

Click here to show all instruments at once.

## 4. FILTERS

Click on a filter to only show those presets. The filters are subtractive, so selecting "One Shots Menu" and "Distorted" will show you only the presets under these filters. Click the "Clear" button to return to a view of all presets.

## 5. NEXT, PREVIOUS AND SAVE

With the presets view collapsed, you will be able to see the Next, Previous and Save icons. Next and Previous will send you to the next available preset - if you have a filter enabled, you will scroll through the filtered set of presets. Save allows you to save your own preset, click save, name the preset and it will appear under the "user" filter.

## 6. FAVOURITE / PREVIEW

Press the stars to favourite your preset. These presets then show up under the "starred" filter.

Previews play back a short example of the preset without having to load it. Enormously helpful when choosing a sound.

## 7. PRESET LIST

Scroll through the list of presets here. Double-click to load a preset or click the load button (9).

## 8. INFORMATION

Hover over on the "i" icon to see some information about the preset.

## 9. LOAD

Select a preset and then press "load" (or double-click the preset).

---

# MAIN CONTROLS

---



## 1. VOLUME

Often referred to as “Expression” in our Kontakt Libraries, this is an overall level control.

## 2. DYNAMICS / MOD WHEEL

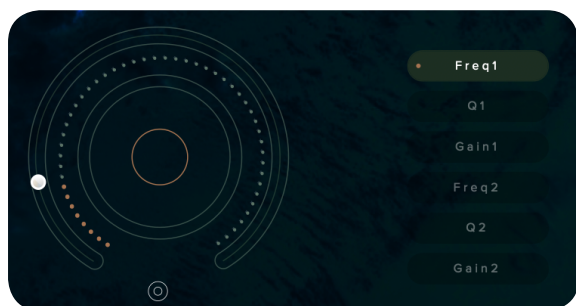
This control, automatically assigned to the modulation wheel, will control the mixer.

## 3. KNOB

The configurable knob allows you to control any of the other available parameters for the particular technique.

Hover over, and click and you will be able to assign any of the remaining available controls to the knob.

Tip: ALT right click any control to assign it to this knob.



Tip: Right click on any of these controls to assign them to a MIDI controller. Remember that if you assign a MIDI controller to a parameter via the knob, the MIDI controller will follow the parameter rather than being permanently assigned to the knob.

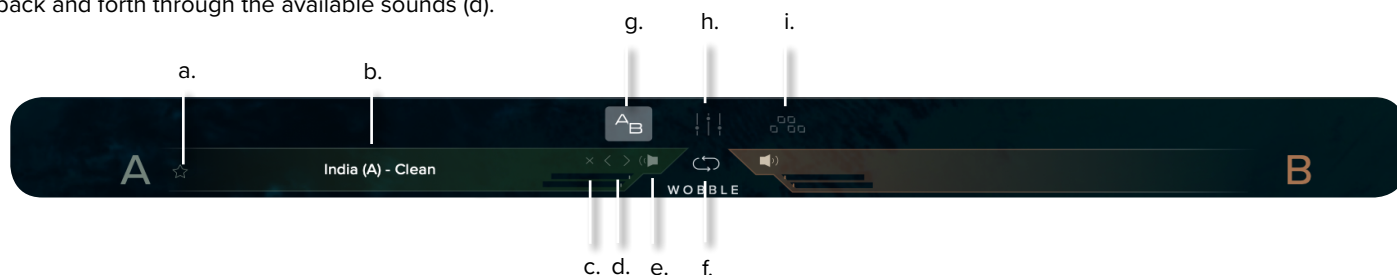
# THE eDNA INTERFACE

## 1. SOUND BAYS

The Sound Bays display which sounds are loaded (b) and allow you to favourite (a) and mute (e) the sound as well as swapping the bays with the button in the centre (f).

You can also browse for, and load different sounds from the browser (b) as well as unloading the sound (c) and navigating back and forth through the available sounds (d).

Finally, use (g) to view the main eDNA panel, (h) to view the FX Pages and (i) to view the Gate Sequencer.



## 2. WOBBLES

Wobbles are low frequency oscillators (LFOs) which are linked to Volume, Pitch and Filter.

Each of these has a frequency (a) and an amount (b) which you can change by clicking and dragging up or down. These can be assigned to your MIDI controller by right clicking (control clicking on Windows).



## 3. ENVELOPE SECTION

This section is made up of the Filters and ADSR

**Filters** - Two filters, low pass (cuts frequencies above the cutoff point) and high pass, (cuts frequencies below the cutoff point)

Click and drag the curve (a) up or down to adjust the frequency cut off of the filter. Pull the slider (b) left to right to adjust the resonance of the filter.

**ADSR** - The ADSR controls the amplitude envelope of the sound.

Adjust the Attack (c) to create a slow or fast fade in to your sound.

The Decay (d) drops the volume to the "Sustain" level (e).

Release (f) sets the time it takes the sound to decay to 0dB after you release a note.





## 4. SAMPLE / NOTE CONTROLS

**4a. Tune** - Adjusts the pitch of the sample in 50 cent (quarter tone or half semitone) steps. To have a smooth dial (which moves in 5 cent steps) click SHIFT and then move the knob.

**4b. Pan** - Moves the instrument within the stereo field left and right.

**4c. Offset** - Is the quickest way of changing the samples you're using. Use this in conjunction with the tune knob to get the desired effect.

In context: offsetting by + 7 keys, you will hear the sample for the note 7 keys higher. If you then tune down 7 semitones you will hear the correct note with a different sample.

**4d. Trim** - Is a gain stage. It helps you tweak the volume balance between sound bay A & B.

In Context: use this if a Bay A instruments needs balancing against Bay B when the x-fade slider passes through the middle position.

*TOP TIP: Hold ALT while moving a control. Bay A and B will move together at the same value.*

**Bend Controls** - These control what happens when you use the pitch bend wheel. This is a parameter that is independent between Bay A & B.

**4e. Glide ON** - This activates the glide control.

**4f. Glide Amount** - Slide this amount up to increase the time it takes to reach the target note, exaggerating the glides between notes.

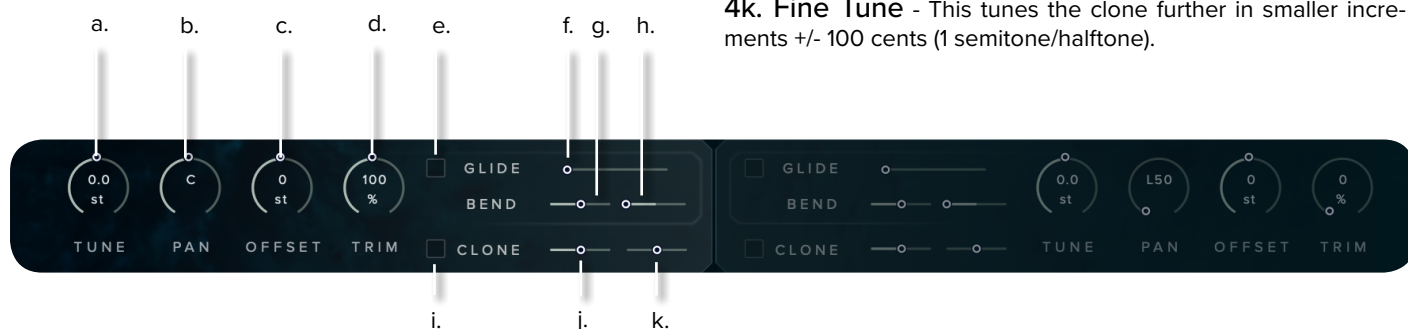
**4g. Bend Amount** - This controller sets the extreme bend amount up to 2400 cents.

**4h. % Bend** - This controller then sets how much in % the pitch bends. For example, if you set the right to 2400 cents, then the left to -100% you get a bend of -2400 cents. If you put the left slider to +50% you get a bend of +1200 cents. This is so you can specify how far you want to bend and then easily bend it.

**4i. Clone On** - This activates the clone control.

**4j. Coarse Tune** - This tunes the clone up and down in 100 cent (1 semitone/halfnote) steps to +/- 1200 cents (1 octave).

**4k. Fine Tune** - This tunes the clone further in smaller increments +/- 100 cents (1 semitone/halfnote).



## 5. OSCILLATE MIXER

The mixer cross fades between the sound in Bay A and Bay B, much like a DJ's mixer.

**5a. Oscillate On** - Switch this to turn on the Oscillator

**5b. Speed** - Synced to your host DAW tempo, adjust up or down to affect the frequency of the Oscillator.

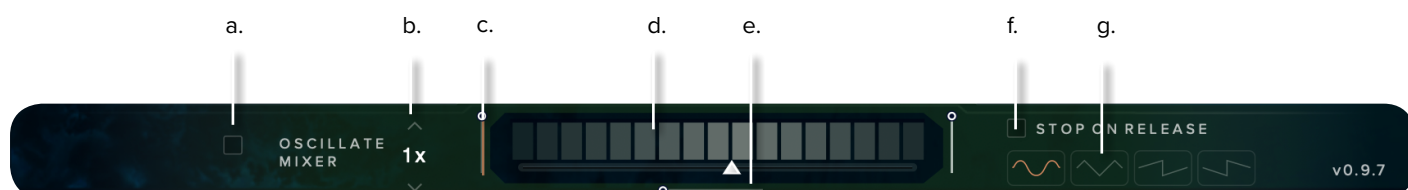
**5c. Direction Strength** - These control the amount the XFader travels in each direction. Both sliders at 50% will oscillate half way in and out of each bay.

**5d. The X-FADER** - This is the cross fader between bay a & b.

**5e. Start/ Phase** - This slider controls where the x-fader starts and which direction it moves first.

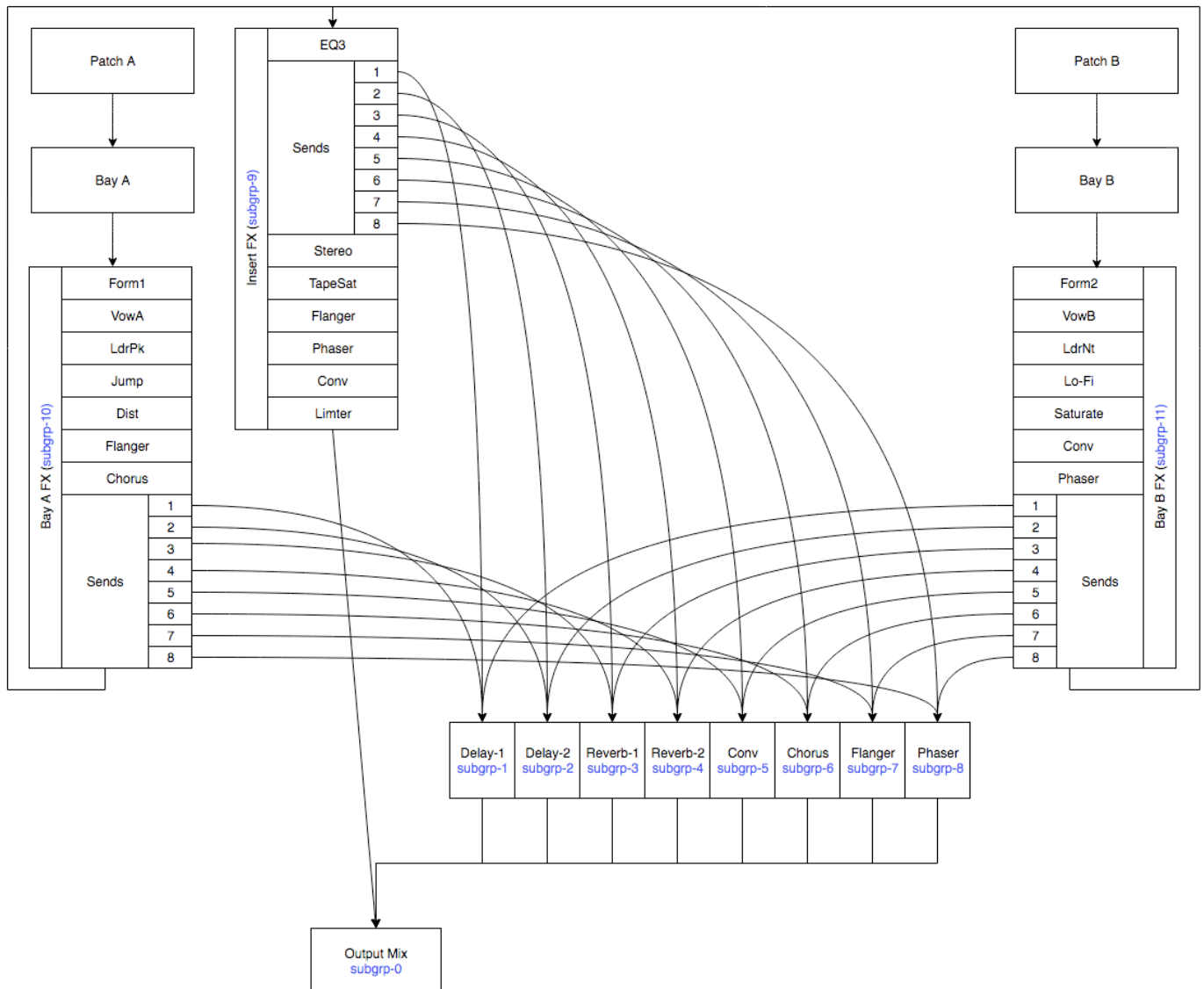
**5f. Stop On Release** - this returns the fader to the 50/50 position on note release. When this option is off the x-fader returns to 50/50, after the sounds in bay a and b have stopped playing.

**5g. Oscillator Shape** - These toggle between the standard 'equal' shape moving left and right, to a more jagged shape to uni-directional.



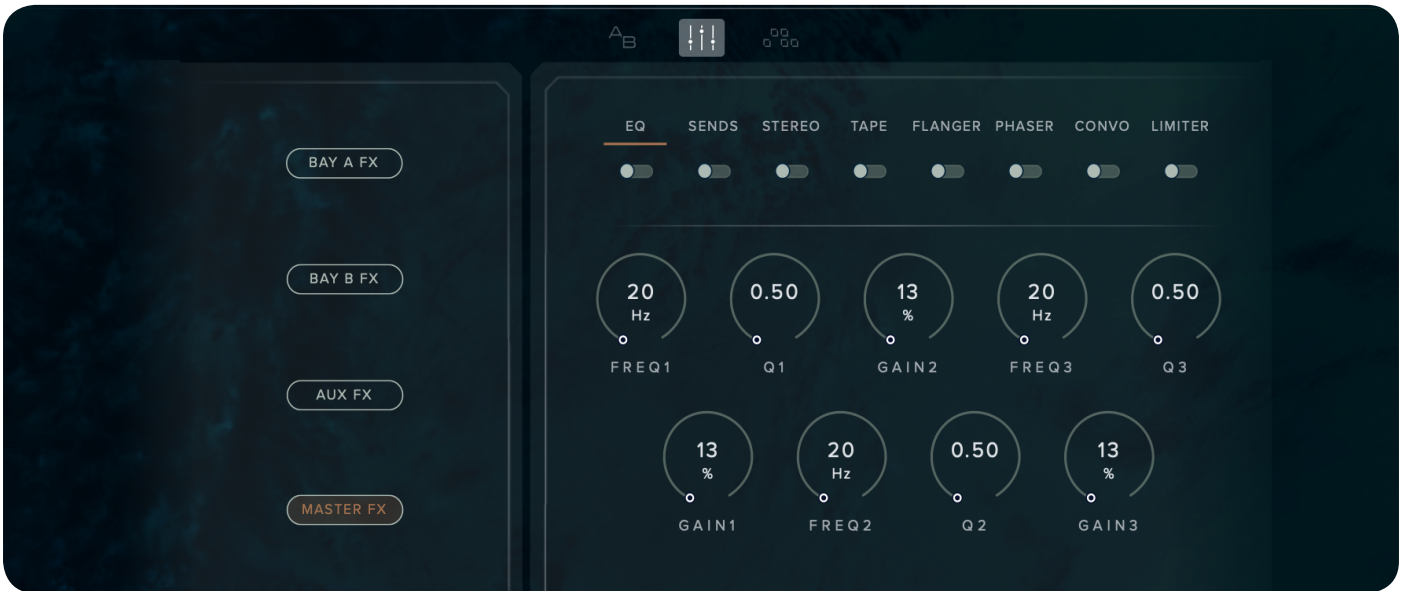
## eDNA'S FX SIGNAL PATH

Below is a diagram of what the signals are doing under eDNA's hood so you can best decide at which stage you wish to add and tweak your effects. We have pre-curated the FX racks according to their stage in the signal path. Common send FX such as Reverbs and Delays are found on the AUX FX. Phases, Flangers and Distortions are found as direct inserts, for example Bay A and B.



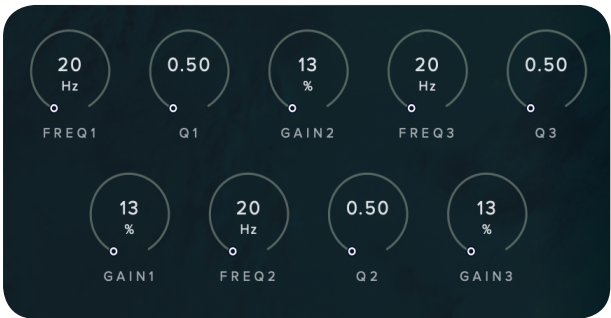
# MASTER FX

These FX are direct inserts on Sound Banks A and B. .



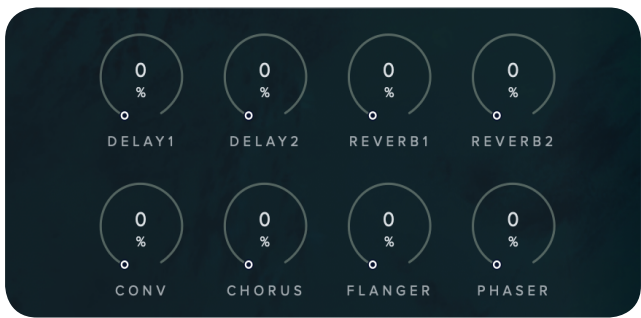
## EQ

- 3 bands to adjust the frequency spectrum.
- Frequency - Controls the band location.
- Gain - Controls the boost or cut in dB, of frequency.
- Q - Controls the bandwidth of the chosen frequency..



## SENDS

- 8 FX sends. NOTE: These will not be heard unless activated under the AUX FX section.
- 2x Delay and Reverb.
- Convolution, Chorus, Flanger and Phaser. Turn the sends on, and adjust the FX settings in the AUX FX returns area.



## STEREO

This FX allows the user to increase the stereo width of the sound.

Spread - Increase Stereo Width.

Pan - Allows the user to adjust the spread between L/R.

Output - Allows the users to compensate for any gain reduction.



## TAPE

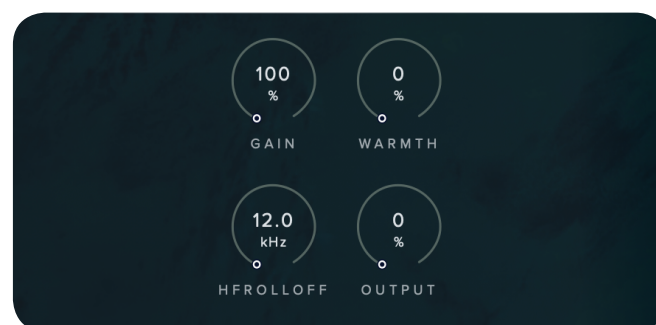
Tape Saturation emulates gentle compression and distortion of recording to tape.

Gain - Increasing this will create a greater distortion.

Warmth - a tone control for the tape and adds in harmonics.

HF Rolloff - attenuates high frequencies.

Output - allows the user to compensate for any gain reduction.



## FLANGER

A Flanger splits the signal and delays one version. The delayed version is then modulated and fed back into the input.

Depth - The LFO modulation amount. Increase this for a greater range of sweeping.

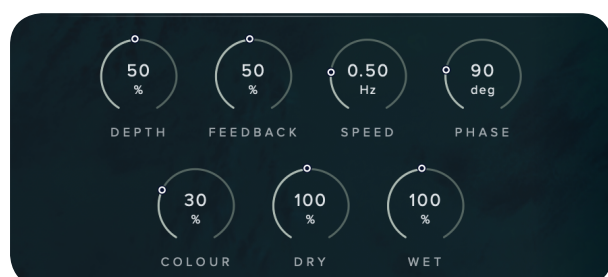
Feedback - Controls the amount of output signal that is returned into the input.

Speed - Controls the rate of the LFO variation.

Phase - The phase difference between the left and the right channels.

Colour - Adjusts the delay of the effect, lower values result in an effect similar to a Phaser.

Dry / Wet - Adjust the balance between the original signal, and the processed signal.



## PHASER

The Phaser adjusts the phase relationship in the signal using an all-pass filter. This creates a comb-filter attenuating some frequencies and boosting others.

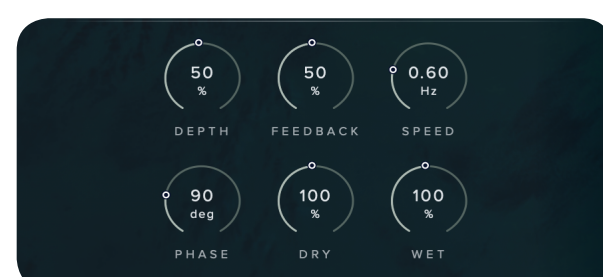
Depth - The LFO modulation amount. Increase this for a greater range of sweeping.

Feedback - Controls the amount of output signal that is returned into the input.

Speed - Controls the rate of the LFO variation on the all pass filter.

Phase - The phase difference between the left and the right channels.

Dry / Wet - Adjust the balance between the original signal, and the processed signal.



---

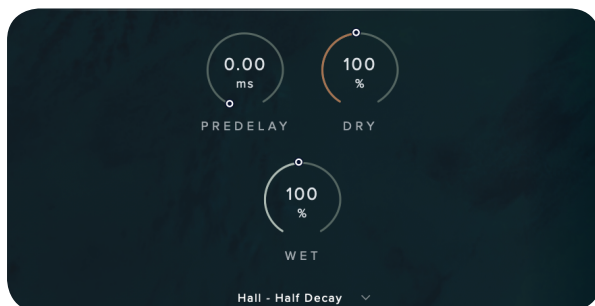
## CONVOLUTION

Convolution is a Impulse Response(ir) reverb.

Pre Delay - Adjust the onset of the reverb in ms.

Dry / Wet - Adjust the balance between the original signal, and the processed signal.

Drop-down Menu - Choose from a range of different impulses.



## LIMITER

Limiters are a safeguard against clipping of the overall output signal. with a ratio of 1:100 and a fast attack.

In Gain - Sets input signal gain. Turn this up until attenuation is heard.

Release - In ms, how long it takes for the Limiter to return to its unprocessed signal.

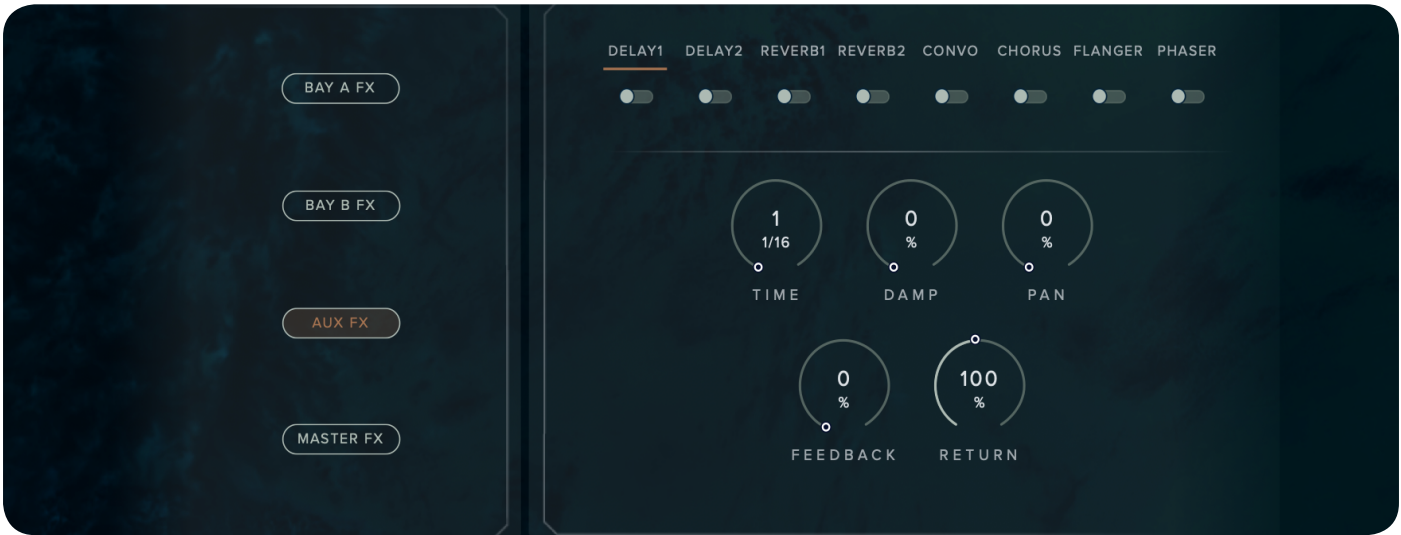
Output - Compensates for any gain reduction.



# AUX FX

Under AUX FX are the controls for all send FX.

NOTE: to hear these FX, the sends need to be active under Master FX, Bay A FX or Bay B FX. Send signal content to these FX via the send section of Master FX, Bay A FX, and Bay B FX



## DELAY 1&2

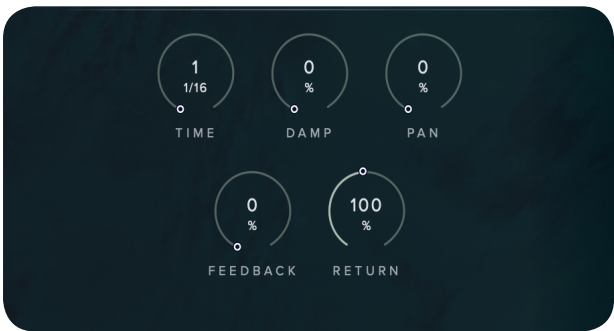
Time - The delay time in notation. For example 1/8 = a delay time of 1 quaver / 8th note.

Damp - With each delay repetition the high frequencies are attenuated.

Pan - Create a stereo delay where delay fluctuates between L/R channels.

Feedback - Controls the amount of repetitions that occur.

Return - Overall FX volume level.



## REVERB 1&2

Pre Delay - Adjust the onset of the reverb in ms.

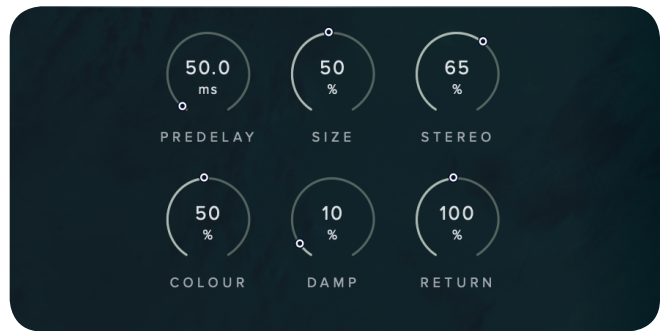
Size - Increase the size to give the impression of a larger room.

Stereo - Increase the stereo width of the reverb.

Damp - The room absorption control.

Colour - Lower values will resemble softer room material, whereas higher values resemble more reflective surfaces.

Return - Overall FX volume level.





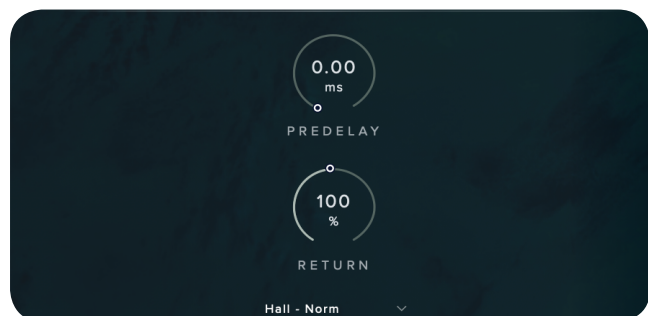
---

## CONVOLUTION

Pre Delay - Adjust the onset of the reverb in ms.

Return - Overall FX volume level.

Drop-down Menu - Choose from a range of different impulses.



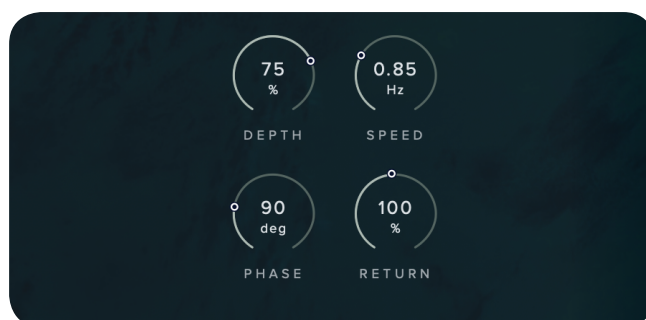
## CHORUS

Depth - The LFO modulation amount

Speed - The Frequency of the LFO.

Phase - The phase difference between left and the right channels.

Return - Overall FX volume level.



## FLANGER

Depth - The LFO modulation amount. Increase this for a greater range of sweeping.

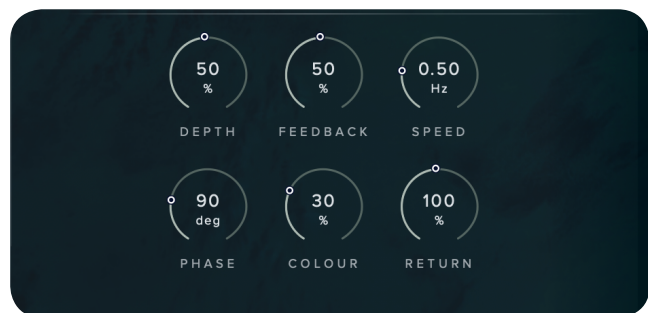
Feedback - Controls the amount of output signal that is returned into the input.

Speed - Controls the rate of the LFO variation.

Colour - Adjusts the delay of the effect, lower values result in an effect similar to a Phaser.

Phase - The phase difference between the left and the right channels.

Return - Overall FX volume level.



## PHASER

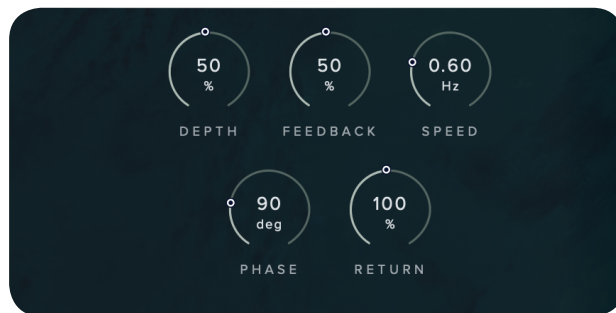
Depth - The LFO modulation amount. Increase this for a greater range of sweeping.

Feedback - Controls the amount of output signal that is returned into the input.

Speed - Controls the rate of the LFO variation on the all pass filter.

Phase - The phase difference between the left and the right channels.

Return - Overall FX volume level.



# BAY A FX

These FX are direct inserts which affect the sound in bay A. The sends, send signal to the AUX FX.



## SHAPE

Associated with a talk box effect, a filter which can target the vowel sounds.

Talk: Controls the frequency response of the filter

Shape: Similar to a resonance control on a synth, this control provides a boost or cut to the notches.

Size: Similar to a frequency cutoff control.

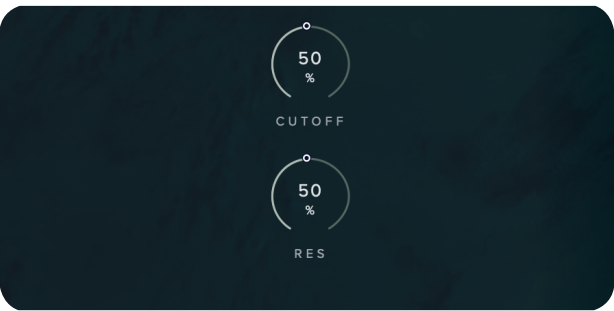


## PHONIC

Similar to the shape, this is another filter emphasising vowel sounds.

Cutoff - changes the frequency centre of the filter.

Resonance - This control emphasises the filter cut off point.





## PEAK

A traditional filter found in early synthesis, a Ladder Peak filter that emphasises frequencies at the cut off point

Cutoff - changes the frequency centre of the filter.

Resonance - This control emphasises the filter cut off point.

Gain - This control increases the overall volume after the filter stage.



## AMP

A typical guitar amplifier FX.

Bass - Modifies Bass frequencies

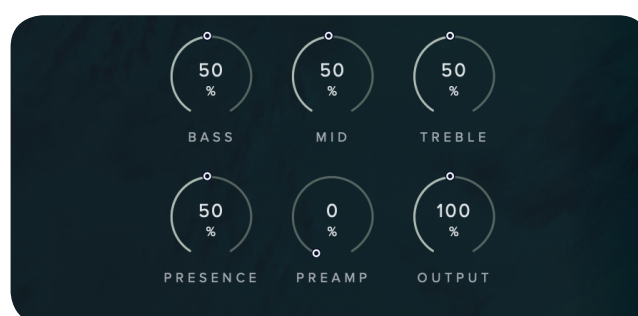
Mid - Modifies Mid frequencies

Treble - Modifies High frequencies

Presence - Boosts upper mid frequencies.

Preamp - Use this to increase drive and distortion.

Output - Adjust the volume level after the FX.



## DISTORTION

Another traditional filter found in early synthesis, a Ladder Peak filter that emphasises frequencies at the cut off point

Drive - Increase or decrease the amount of distortion

Damp - Increase this to increase high frequencies. Similar to a presence control.

Output - Overall volume output after the FX.



## FLANGER

Depth - The LFO modulation amount. Increase this for a greater range of sweeping.

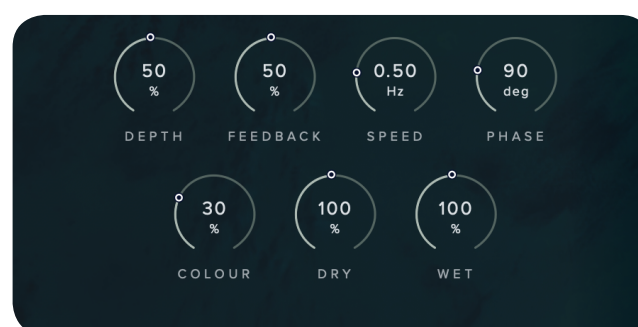
Feedback - Controls the amount of output signal that is returned into the input.

Speed - Controls the rate of the LFO variation.

Colour - Adjusts the delay of the effect, lower values result in an effect similar to a Phaser.

Phase - The phase difference between the left and the right channels.

Output - Overall volume output after the FX.



---

## CHORUS

Depth - The LFO modulation amount.

Speed - The Frequency of the LFO.

Phase - The phase difference between left and the right channels.

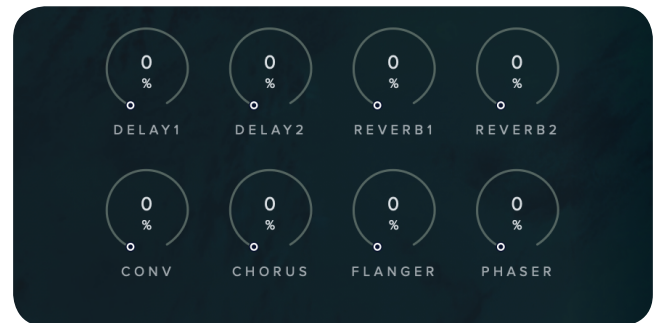
Output - Overall volume output after the FX.

## SENDS

8 FX sends. NOTE: These will not be heard unless activated under the AUX FX section.

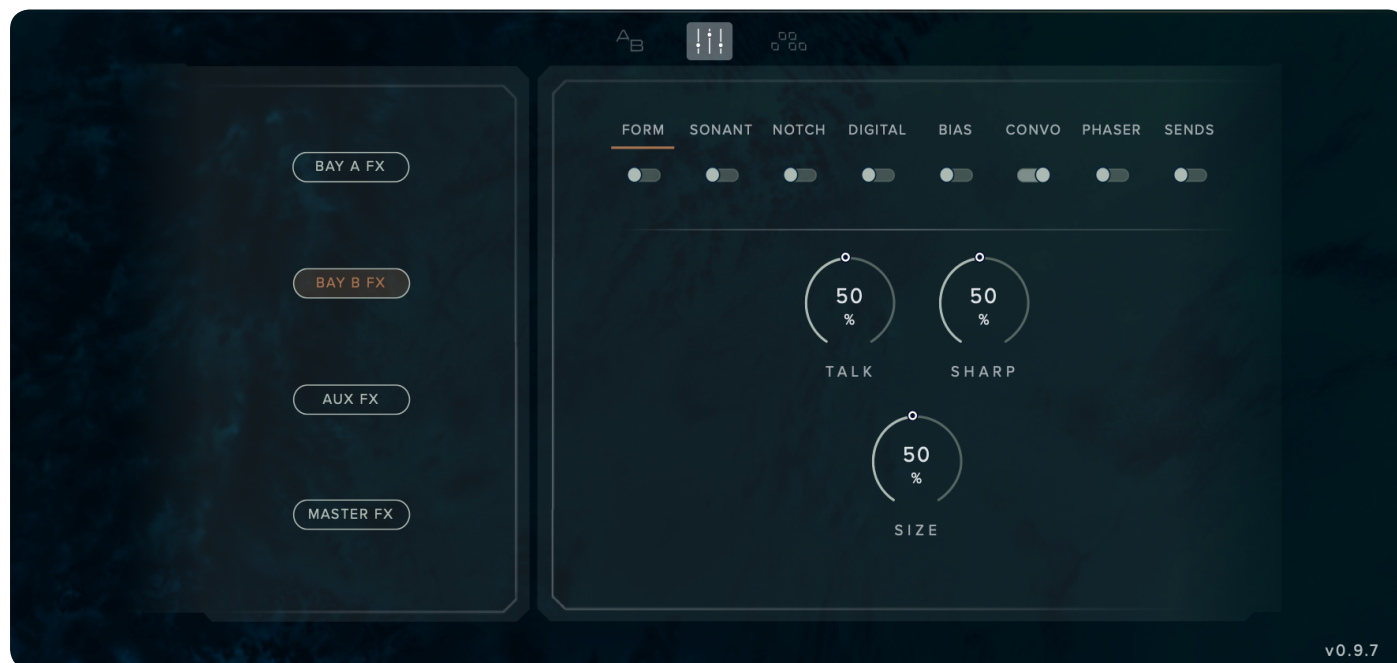
2x Delay and Reverb.

Convolution, Chorus, Flanger and Phaser. Turn the sends on, and adjust the FX settings in the AUX FX returns area.



## BAY B FX

These FX are direct inserts which affect the sound in bay B. The sends, send signal to the AUX FX.



## FORM

Another filter associated with a talk box effect, a filter which can target the vowel sounds.

Talk - Controls the frequency response of the filter

Shape - Similar to a resonance control on a synth, this control provides a boost or cut to the notches.

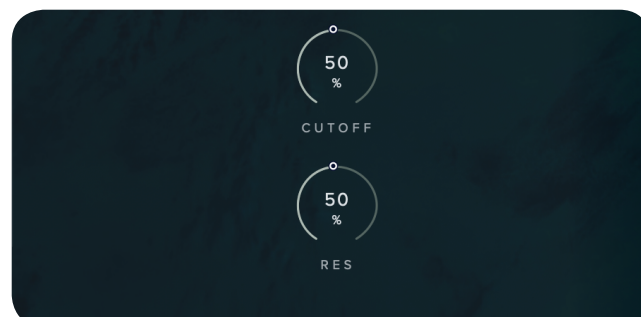
Size - Similar to a frequency cutoff control.

## SONANT

Similar to Phonic.

Cutoff - changes the frequency centre of the filter.

Resonance - This control emphasises the filter cut off point.



---

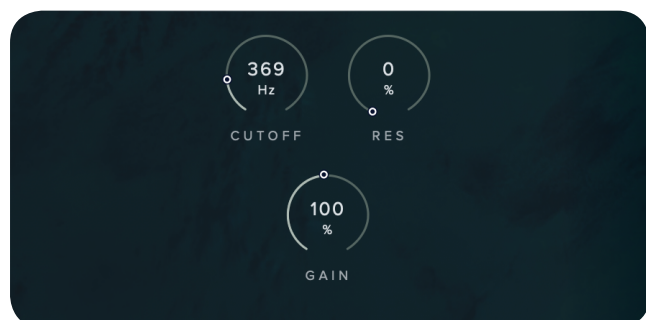
## NOTCH

Similar to Peak however the Notch Filter cuts two bands either side of the cut off point.

Cutoff - changes the frequency centre of the filter.

Resonance - This control emphasises the filter cut off point.

Gain - Overall volume output after the FX.



## DIGITAL

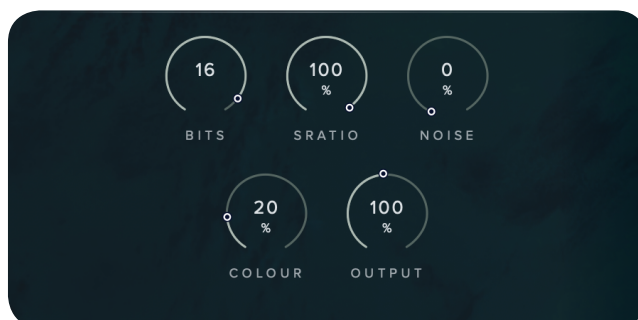
Bits - Adjust the quantisation of the audio to a different bit-depth.

Sratio - Adjust the samples of the audio to a different sample rate

Noise - Adds noise to the audio signal.

Colour - Adds a frequency variation to the noise.

Output - Overall volume output after the FX.



## BIAS

A saturation based Amplifier.

Saturate - Increase this to add a gentle compression. Similar to the drive of analogue tape.

Output - Overall volume output after the FX.

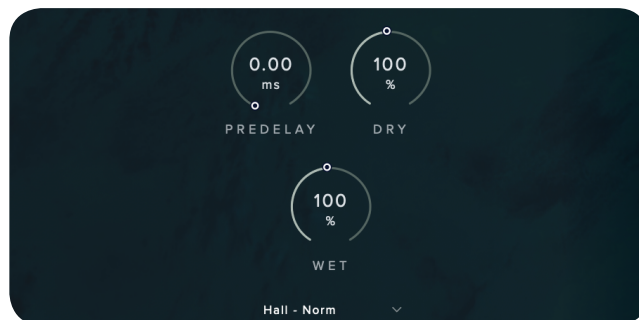


## CONVOLUTION

Pre Delay - Adjust the onset of the reverb in ms.

Dry / Wet - Adjust the balance between the original signal, and the processed signal.

Drop-down Menu - Choose from a range of different impulses.



---

## PHASER

Depth - The LFO modulation amount. Increase this for a greater range of sweeping.

Feedback - Controls the amount of output signal that is returned into the input.

Speed - Controls the rate of the LFO variation on the all pass filter.

Phase - The phase difference between the left and the right channels.

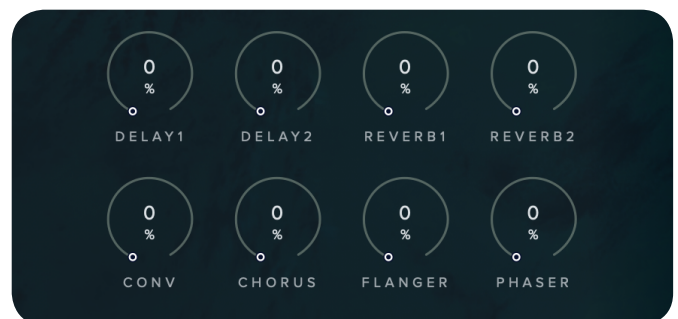
Dry / Wet - Adjust the balance between the original signal, and the processed signal.

## SENDS

8 FX sends. NOTE: These will not be heard unless activated under the AUX FX section.

2x Delay and Reverb.

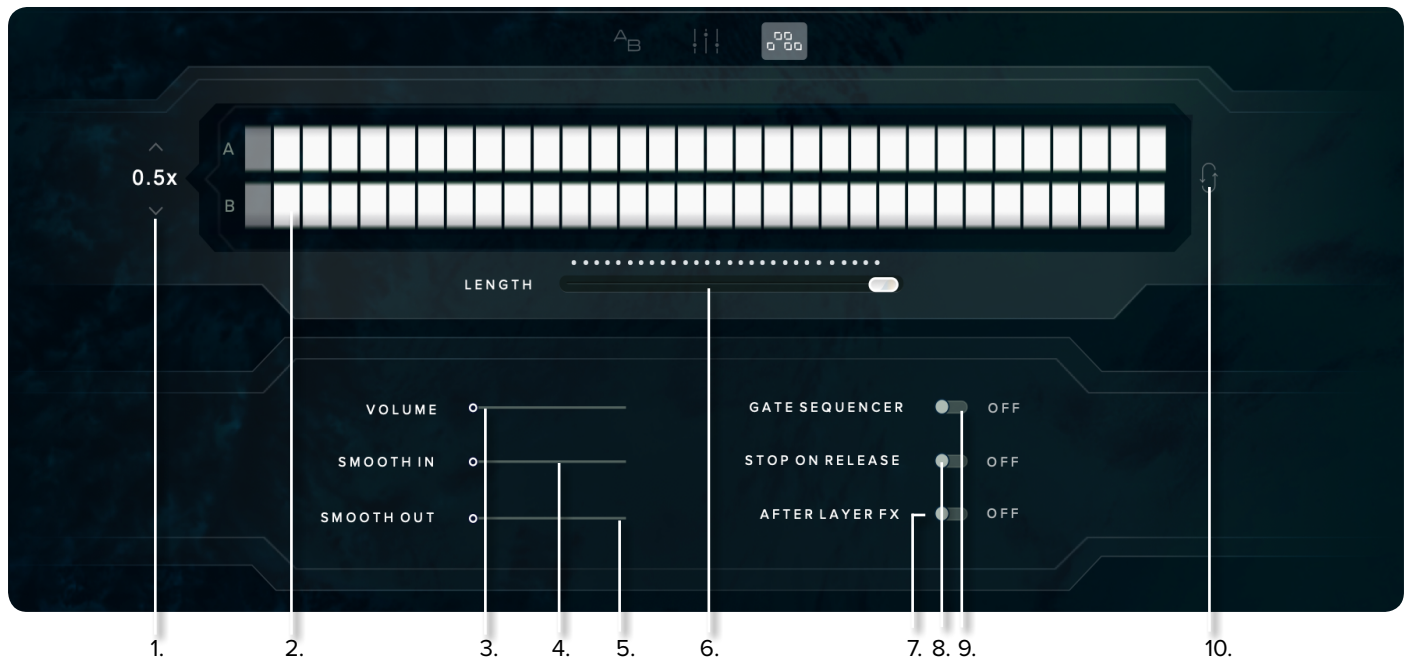
Convolution, Chorus, Flanger and Phaser. Turn the sends on, and adjust the FX settings in the AUX FX returns area.



# THE GATE SEQUENCER

With the Gate Sequencer running, you can rhythmically mute and unmute both sounds independently.

The top line is the gate for Bay A, the bottom for Bay B. The default position is everything "on". To gate either A or B simply click on the step you wish to gate.



**1. Speed** - Adjusts the speed of your gate sequence in relation to your DAW tempo.

**2. Gate Cell** - Click these in / out to activate a sequence.

**3. Volume** - This adjusts how much the gate cuts the sound. It's default position is all the way off, the more you adjust the slider the more you adjust how much the gate drops down to.

**4. Smooth In** - Changes the shape of the front of the gate and smooths it in.

**5. Smooth Out** - The amount of tail the gate has.

**6. Division Slider** - If you need more or fewer steps than the default length, use the division slider. This will not affect the gate speed, but the number of steps in your pattern. Particularly useful when working in a 3/4 time signature.

**7. After Layer FX** - This switches the gate stage to after the bank FX.

**8. Stop on release** - Switches the gate engine off when you release your sound.

**9. Gate Sequencer** - Switches the machine on or off.

**10. Flip** - This swaps the A/B sequence around.

We have also have some quick keys that help you tweak and experiment quickly and easily:

- Holding shift toggles a range of cells (i.e. press the 2nd cell, hold shift, press the 10th cell - cells 2-10 will change)
- Holding ALT affects both A and B cells (same as ALT and knob twiddling)
- Holding CMD/CTRL (Mac/PC) and clicking inverts the current sequencer track. On becomes off and vice versa.



---

# APPENDIX A - RECOMMENDED TECH SPECS

---

## RECOMMENDED SPEC:

The better your computer, the better the performance of any Spitfire module. All programs are provided with a set of parameters that enable you to dial back the CPU demands of any given patch. But moving forward, we're confident this module will keep your computer busy for many years to come! We recommend a combination of high processor speeds, a good chunk of memory and a devoted SSD eSata, USB3, or Thunderbolt drive. The more memory you have, the less demand placed on your drive, and having a totally devoted drive gives you the chance to load less into memory and reduce load times. The higher the speed of your CPU, the more capable your computer will be to deal with some of the amazing, but complicated scripts we've written.

**PCs:** We recommend Windows 7 or later (latest Service Pack, 32/64 Bit), Intel Core Duo or AMD Athlon 64 X2, 4 GB RAM (8 GB minimum).

**MAC:** We recommend Mac OS X 10.10 or later. Intel Core 2 Duo, 8 GB RAM

**DRIVES:** USB3, Thunderbolt, or eSata SSDs. Ask your dealer for drives that are suitable for "AV use". If you use an SSD drive instead of HDD, this will massively increase the power of your system. Instead of 7-9ms seek time, the usual seek time is <0.1ms.

You can also reduce your sampler's "pre-load" buffer in audio settings meaning you'll be able to load enormous orchestral palettes into a single machine.

**HOST:** The plugin should work comfortably on most commonly found platforms and DAWs. If your main DAW is not running on a newish machine, or has a limited spec, and you're planning on building a large orchestral palette, you could consider running your library independently of your DAW, either on your host computer (e.g. via Re-Wire) or on a slave device (e.g. via Midi or MOL).

---

## APPENDIX B - eDNA EFFECTS

---

**EQ3** - This EQ is a 3-Band, parametric EQ that allows you to boost or cut any frequency range throughout the entire spectrum by up to 18db, with adjustable Bandwidth parameters allowing you to choose between 'surgical' EQ-ing or gentle corrections.

**Amp** - The 'Jump' effect simulates the classic tone for British guitar amplifiers. It is ideal for creating smooth, singing lead sounds.

**Limiters** - A form of compressors with a ratio of one to infinity, a threshold just below the maximum level and a very short attack time. A limiter acts as a safety net to keep short signal peaks from overloading the system, which would result in audio clipping.

**Tape** - The Tape Saturator emulates the soft compression and distortion of recording to tape. It is mainly used to lightly add warmth and colouring to the sound, or to add aggressive distortion.

**Distort** - This module achieves Distortion by clipping or rounding off high sample value, therefore it simulates the behaviour of overloaded tube circuits or transistors by adding artificial harmonics to a sound.

**Digital** - This module adds various digital artefacts such as aliasing or quantising noise, to clean the signal. It is ideal for roughing up sounds that would otherwise be too plain and featureless, or to recreate those classic 8Bit video game sounds.

**Bias** - A basic amplifier with a non-linear characteristic. This allows you to recreate the effect of tape saturation, which causes an increase of high-level energy in your signal.

**Stereo** - This allows you to control the width of your signal's stereo base, change the panning and also allows you to create a pseudo-stereo signal from mono sources.

**Delay** - This Delay effect is a process that creates a carbon copy of the sound and repeats it back after a period of time. It can optionally be synced to the tempo and provides an adjustable feedback level, a low-pass filter and a pan control for 'ping-pong' echo effects. Delay times lower than 20ms are not discernible as delays, but can produce interesting comb filtering effects.

**Chorus** - This is a method of adding "thickness" to the audio signal by splitting it up and detuning one version in relation to the original. Separate LFOs with an adjustable phase relationship detune each stereo channel independently to create a wide-panorama effect.

**Flanger** - This module splits the audio signal and delays one version in relation to the original signal. By modulating the delay time, as well as feeding an adjustable amount of the output signal back into the input, the Flanger creates a characteristic 'whoosh' sound. The Flanger module uses a separate LFO for each stereo channel, with the phase relationship between both LFOs being adjustable.

**Phaser** - This effect continually changes the phase relationships in the signal with an all-pass filter. As a result comb filtering occurs, which attenuates some frequencies while boosting others. The sound is of a similar nature to the Flanger effect, but it is more subtle.

**Convolution** - This is a type of reverb that allows you to replicate the acoustical behaviour of a linear system; such as a room, a speaker, a harp or even a hardware reverb unit, for your own signals. To accomplish this, a short audio recording of a wide-band signal played through a system is fed into the convolution processor. This recording is usually a normal audio file called an 'Impulse Response' (or 'IR'). Convolution reverb is best known for achieving highly realistic reverbs. It can be used within the 'Instrument Insert Effects', and the 'Instrument Send Effects' channels, or as an 'Output effect.'

**Reverb** - This reverb is algorithmic, it simulates the natural reverberation that occurs when a sound source is placed in an acoustic environment, this adding a feeling of spaciousness to the sound.

**Shape / Form** - Formants are acoustic resonances, the term often applies to the phonetics of the human speech. Formant Filters are designed to mimic the frequency response of the human vocal tract and as a result, these types of filters are used to emulate the 'talk box' effect.

**Phonic** - This module is similar to a Formant Filters as it also simulates the resonant frequencies of the human vocal tract in regards to forming a vowel sounds. The throat and mouth cavities will change their shape in order to create a complex, natural filter that emphasizes certain frequencies in the sound created by our vocal chords. These characteristics allow human hearing to discern between different vowels, and are being replicated by this filter.

**Sonant** - The Vowel B module is very similar to the Vowel A module, but it has a slightly different sonic characteristic.

**Peak** - Based on the classic ladder circuit used in early synthesis, these filters are the first choice for recreating synthetic sounds. The Peak is a filter that accents frequencies at the cutoff.

**Notch** - The 'Ladder Notch' module is very similar to the 'Ladder Peak' module with the difference being that the Notch cuts two narrow bands of frequencies either side of the cutoff.



---

## APPENDIX C - FAQs & TROUBLESHOOTING

---

### Q: HOW CAN I REDOWNLOAD A PRODUCT?

With the continuous improvements to our Spitfire App, we have incorporated the ability to reset your own downloads, be it the entire library or the most recent update! This can easily be done via your Spitfire App. To reset both your entire library download or the latest update; Open up the Spitfire App and log in with your account email and password.

- Select the download you wish to re-download
  - In the cog menu choose Reset Download > Entire Download/Latest Update
  - This will reset your whole download/your latest update
- You can repeat this process for any of the libraries you own. Note that there is a limit to how many times you can reset your downloads in a certain time frame. If you do exceed your reset limit please get in touch.

### Q: DIFFICULTIES IN DOWNLOADING / INSTALLING

Customers may find that they have some difficulties in the downloading process. If you find that you are having some trouble, please check the list below for possible causes.

- The formatting of your drive, if it is FAT32 this will cause errors, because there is a maximum file size with this format of 4GB and our download files will exceed this limit. To solve this problem, reformat your drive to a more modern format, or use a different drive. We recommend NTFS on PC and Mac OS Extended (journalled) on Mac.

- Free space on your hard drive, please allow slightly more space than the library size for your install.

Other issues;

- Spitfire App freezes in the “Extracting” stage for hours. This may be because our libraries are often very large files, and this is the stage where the compressed files are extracted and placed in their final locations on the hard drive. There could be hundreds of GB of content to unpack, so it really can take hours. If you’re unsure whether it has crashed or is simply extracting files, visit the installation folder you chose when you started the install. If everything is working normally you’ll see various files appearing in the folder (or one of its sub-folders).

- If your download gets stuck and is continually cycling and not resuming, please get in touch with us, giving us as much detail as possible about your set up. It would be helpful if you can tell us: Your operating system, where you are downloading from (your country, and also whether you’re at home or work), your ISP, and whether there are any proxy servers or firewalls between your computer and the internet.

### Q: WHAT IS YOUR REFUNDS / RETURNS POLICY?

If you have NOT completed the download / installation process, then we CAN refund/return your product, please contact support with your account email address and order number so we can handle this quickly. If you HAVE completed the installation process (even if you’ve not yet registered your serial number), please see our EULA in regards to why we do not accept refunds and returns. We can refund hard drive orders up until the point when the drive is dispatched from our office. This is usually 1-2 days after you order.

### Q: I’VE FORGOTTEN MY PASSWORD?

If you have forgotten your password, please see this link, and click ‘Forgotten Password’. If at some point in the past you asked us to merge two or more accounts but have since forgotten, you MAY find that the forgotten password isn’t working for the email address you asked us to merge FROM. In this case, please contact support with your name, and any email addresses you think we might know about, and we’ll work out what has happened.

### Q: I HAVE FAST INTERNET, WHY IS MY DOWNLOAD SLOW?

We have no direct influence on your actual download speeds, our libraries are hosted on Cloudfront servers which are normally very quick but it may well be that at certain times of the day when traffic is particularly busy, your ISP may throttle your connection speeds. We would advise you to leave your download running overnight as speeds should ramp up at less busy times. Our Spitfire App downloader aims to use as much of the available bandwidth as possible to give you the quickest possible speeds, and may take several minutes to reach its peak.

### Q: CAN I INSTALL ON MORE THAN ONE COMPUTER?

With our products you have two installs. This means that you are allowed to download and install on two computers you own, say your main rig and your mobile rig. The best way to get your library on both of your machines is to copy it from one to another via an external HDD. It saves you from having to re-download the whole library again!

### Q: CAN I TRY BEFORE I BUY?

No - it is not possible to demo our products. If you go to our YouTube Channel you’ll see many walkthroughs containing detailed info about all our products -- you can hear them being played in real time with no smoke and mirrors!

### Q: MY LIBRARIES ARE NOT SHOWING UP IN MY SPITFIRE APP?

A handful of customers may find that when they log into their Spitfire App, some of their previous purchased products do not show up in the ‘Installed’ section or in the ‘Not Installed’ section either. It may be that you have purchased these under another email address. Checking other possible email addresses for your previous purchases may help to find these missing products. If this is not the case, and these missing products were purchased a few years ago, please create a support ticket telling us your account email address, and any serial numbers you may have to go with these missing products. Our support team can also merge one or more accounts together if you’d like to consolidate all your purchases in one place. The more information, the quicker we can get you back up and running!

---

## **Q: HOW DO I UPDATE MY PRODUCTS?**

The main premise of downloading our products is that our Spitfire App downloads into the folder you choose, so it is always good to choose the folder above where you want the download to go. The best file path for our products is something very simple, a long file path will cause errors as there is a character limit on how far the Spitfire App can read. We advise a file path of something along the lines of: Samples Drive > Spitfire Audio - always point the downloader to the folder 'Spitfire Audio' (the folder above the library) for all downloads and updates. When it comes to downloading/updating - if you have a folder called 'Spitfire Audio' always point the Spitfire App to the folder Spitfire Audio - never go into this folder and choose the actual library in question.

## **Q: I'VE BEEN WAITING AGES FOR MY DOWNLOAD LINKS?**

We run all our orders through a fraud checking process. The automatic fraud check takes 20 minutes (but can take up to an hour during a very busy period, eg. Black Friday), but if your order gets caught at this stage, we run a manual order check, and this can delay the processing of your order for up to 24 hours (though this would be a rare and exceptional case).

You should however receive an order confirmation email IMMEDIATELY upon placing your order. This confirms that your order has successfully been logged in our system and that your payment was successfully taken. Please check your junk folders before contacting our support. The message will come from do\_not\_reply@spitfireaudio.com if you'd like to add us to your whitelist.

## **Q: CAN I DOWNLOAD ON A PC, THEN TRANSFER TO A MAC OR VICE VERSA?**

All of our libraries are compatible on both PC and Mac computers. You can download all of our libraries on either PC or Mac and they will work if you need to transfer them across to the other operating system. We advise to do this by copying the library you want to move across to an external HDD and then copying it to and then copying it to your other machine.

## **Q: I WANT TO BUY A COLLECTION, BUT I ALREADY OWN ONE OR MORE OF THE PRODUCTS IN IT?**

Our cart will intelligently deduct the proportional cost of any products you already own from the total price when you get to the checkout.

## **Q: I THINK I HAVE FOUND A BUG**

In some cases we can't squash them all and bugs shamefully make their way through. If you think you have found a bug, please contact us with all the relevant information;

- A description of the bug you have found
- A screencast (video) of the bug happening, or an audio example
- The exact patch name (or patches) in question and also the library giving us as much detail as possible will help us get to the bottom of the issue.

---

---

© SPITFIRE AUDIO HOLDINGS LTD  
MMXIX